

<b>REPORT DOCUMENTATION PAGE</b>				Form Approved OMB No. 0704-0188	
Public reporting burden for this collection of information is estimated to average 1 hour per response, including the time for reviewing instructions, searching existing data sources, gathering and maintaining the data needed, and completing and reviewing this collection of information. Send comments regarding this burden estimate or any other aspect of this collection of information, including suggestions for reducing this burden to Department of Defense, Washington Headquarters Services, Directorate for Information Operations and Reports (0704-0188), 1215 Jefferson Davis Highway, Suite 1204, Arlington, VA 22202-4302. Respondents should be aware that notwithstanding any other provision of law, no person shall be subject to any penalty for failing to comply with a collection of information if it does not display a currently valid OMB control number. <b>PLEASE DO NOT RETURN YOUR FORM TO THE ABOVE ADDRESS.</b>					
<b>1. REPORT DATE (DD-MM-YYYY)</b> March 2002		<b>2. REPORT TYPE</b> Final		<b>3. DATES COVERED (From - To)</b>	
<b>4. TITLE AND SUBTITLE:</b> What are the Contributions of Social Demographics and Perceptions of Military Life in a Changing Army to the Health and Retention Preferences of Army Spouses: Active Duty, Reserve and National Guard				<b>5a. CONTRACT NUMBER</b>	
				<b>5b. GRANT NUMBER</b>	
				<b>5c. PROGRAM ELEMENT NUMBER</b>	
<b>6. AUTHOR(S)</b> Durand, Doris B.; Burrell, Lolita M.; Fortado, Jennifer				<b>5d. PROJECT NUMBER</b> WRAIR Protocol #473	
				<b>5e. TASK NUMBER</b>	
				<b>5f. WORK UNIT NUMBER</b>	
<b>7. PERFORMING ORGANIZATION NAME(S) AND ADDRESS(ES)</b>  Walter Reed Army Institute of Research 503 Robert Grant Ave Silver Spring, MD 20910-7500				<b>8. PERFORMING ORGANIZATION REPORT NUMBER:</b> WRAIR Protocol #473	
<b>9. SPONSORING / MONITORING AGENCY NAME(S) AND ADDRESS(ES)</b> Headquarters, U.S. Army Medical Research and Materiel Command MCMR-PLC 504 Scott Street Fort Detrick, MD 21702-5012				<b>10. SPONSOR/MONITOR'S ACRONYM(S)</b> USAMRMC	
				<b>11. SPONSOR/MONITOR'S REPORT NUMBER(S)</b>	
<b>12. DISTRIBUTION / AVAILABILITY STATEMENT</b> Distribution Statement A. Approved for public release; distribution is unlimited.					
<b>13. SUPPLEMENTARY NOTES</b> The findings were collected under WRAIR Protocol #473: "Unit Leadership, Downsizing and Community Supports: Impacts on Soldier-Family Stress Contagion at FORSCOM Posts", which was funded by the Research Area Directorate for Military Operational Medicine (LTC Karl Friedl), U.S. Army Medical Research and Materiel Command, Ft. Detrick, Maryland.					
<b>14. ABSTRACT</b> Over the last three decades the institution to the All-Volunteer Force (AVF) and Total Force Policy, as well as the end of the Cold War have had a significant impact on the Army. We explore the social demographics in the AVF, the integration of the National Guard and Reserve into the military way of life, and the effects of military duties in relationship to the physical and psychological health and retention preferences of today's Army spouses. Survey data were collected from a sample of 709 spouses: 137 Active Duty, 398 National Guard, and 174 Reserve. Overall, we found that spouses possessed good physical and psychological health and wanted their soldiers to remain in the Army. Among the social demographic issues, finances were problematic. Approximately one-third of spouses reported that finances caused problems in their families and 15% reported debts of over \$30,000. Debt level was not significantly correlated with retention preference; however, it was associated with higher depression scores. The data from our integration indicators suggested that the USAR and ARNG spouses were not integrated into the military way of life to any great degree. Although not significantly correlated to health measures, increased integration was associated with spouses wanted their soldiers to remain in the military. Increased soldier time away from home and unpredictable duty hours were both associated with increased spouse depression scores. These findings suggest that social demographics, component integration and military duties are associated with health and retention outcomes. Future research should examine the influence of variables such as coping strategies and information flow that may moderate health and retention outcomes.					
<b>15. SUBJECT TERMS</b> Army Spouses, Family, Social demographics, Deployments, Separations, Military duties, Health, Retention, Active duty, Reserve, National Guard					
<b>16. SECURITY CLASSIFICATION OF:</b>			<b>17. LIMITATION OF ABSTRACT</b>  SAR	<b>18. NUMBER OF PAGES</b>  57	<b>19a. NAME OF RESPONSIBLE PERSON</b> Dr. Doris Durand
<b>a. REPORT</b> UNCLASSIFIED	<b>b. ABSTRACT</b> UNCLASSIFIED	<b>c. THIS PAGE</b> UNCLASSIFIED			<b>19b. TELEPHONE NUMBER</b> (include area code) (301)319-9148

20020325 162

What are the Contributions of Social Demographics and  
Perceptions of Military Life In a Changing Army  
To the Health and Retention Preferences of Army Spouses:  
Active Duty, Reserve, and National Guard

Doris Durand

Lolita Burrell

Jennifer Fortado

Department of Psychiatry and Behavioral Sciences  
Division of Neuropsychiatry  
Walter Reed Army Institute of Research  
Silver Spring, Maryland

The views expressed in this paper are those of the authors and do not necessarily represent the official policy or position of the Department of Defense or the U.S. Army Medical Command.

The findings described in this paper were collected under WRAIR Research Protocol #473 entitled "Unit Leadership, Downsizing and Community Supports: Impacts on Soldier-Family Stress Contagion at FORSCOM Posts", Teitelbaum, J. M., Rosen, L. N., Bliese, P., Evans, M. A., Halverson, R., Durand, D.B., Pehrson, K. L. and Hawkins, J., which was funded by the Research Area Directorate for Military Operational Medicine (LTC Karl Friedl), U.S. Army Medical Research and Materiel Command, Ft. Detrick, Maryland.

We wish to acknowledge the contributions of the researchers listed above who participated in designing the study and collecting the data.

Table of Contents

<b>ABSTRACT .....</b>	<b>4</b>
<b>PURPOSE.....</b>	<b>5</b>
<b>BACKGROUND.....</b>	<b>5</b>
<b>RESEARCH QUESTIONS.....</b>	<b>21</b>
<b>RESEARCH METHODOLOGY.....</b>	<b>22</b>
Sample.....	22
Demographics.....	23
Survey Instruments.....	24
<b>FINDINGS.....</b>	<b>30</b>
<b>SUMMARY AND CONCLUSIONS.....</b>	<b>46</b>

## Army Spouses' Health and Retention Preferences

### Tables

Table 1.	Proportion Approving of a Married Woman Earning Money In Business or Industry if She Has a Husband Capable of Supporting Her.....	11
Table 2.	Number of Army Members with Children by Rank.....	13
Table 3.	Spouses' Preferences for Soldiers' Retention: AD, USAR, ARNG.....	31
Table 4.	Logistic Regression of Soldier Age, Service Component, and Retention Preferences.....	32
Table 5.	Issues Affecting Retention Preferences of Army Spouses.....	32
Table 6.	Indicators of Integration into the Military Way of Life: AD, USAR, ARNG.....	34
Table 7.	Extent to Which Army Spouses Experience Problems: AD, USAR, ARNG.....	35
Table 8.	Likelihood of Army Spouses Using Resources for Support: AD, USAR, ARNG.....	36
Table 9.	How Often Spouses Actually Used Military Resources: AD, USAR, ARNG.....	37
Table 10.	The Extent of Debt (Excluding Mortgage Payments) For Army Families: AD, USAR, ARNG.....	38
Table 11.	Time a Soldier Spends Away from Home in a Year for Training, Field Exercises and Deployments: AD, USAR, ARNG .....	43

**Abstract**

Over the last three decades the institution to the All-Volunteer Force (AVF) and Total Force Policy, as well as the end of the Cold War have had a significant impact on the Army. We explore the social demographics in the AVF, the integration of the National Guard and Reserve into the military way of life, and the effects of military duties in relationship to the physical and psychological health and retention preferences of today's Army spouses. Survey data were collected from a sample of 709 spouses: 137 Active Duty, 398 National Guard, and 174 Reserve. Overall, we found that spouses possessed good physical and psychological health and wanted their soldiers to remain in the Army. Among the social demographic issues, finances were problematic. Approximately one-third of spouses reported that finances caused problems in their families and some 15% reported debts of over \$30,000. Debt level was not significantly correlated with retention preference; however, it was associated with higher depression scores. The data from our integration indicators suggested that the USAR and ARNG spouses were not integrated into the military way of life to any great degree. Although not significantly correlated to health measures, increased integration was associated with spouses wanted their soldiers to remain in the military. The perception that soldiers are spending too much time away from home was clearly evident among active duty spouses with 70% indicating this to be the case compared to 32% of Reserve spouses and 23% of National Guard spouses. Increased soldier time away from home and unpredictable duty hours were both associated with increased spouse depression scores. These findings suggest that social demographics, component integration and military duties are associated with health and retention outcomes. Future research should examine the influence of variables such as coping strategies and information flow that may moderate health and retention outcomes.

### **Purpose of the Study**

In our highly technological Army, the ability to maintain a force of highly skilled and well-trained personnel is of utmost importance. With fluctuating success in recruitment of volunteers, it becomes even more necessary to retain men and women already in the force. Over the past three decades there have been major changes affecting the Army: 1) the institution of the All-Volunteer Force, 2) the implementation of the Total Force Policy, and 3) the conclusion of the Cold War. This study explored how the ramifications of these changes affected retention preferences as well as the psychological and physical health of spouses of Army personnel who were Active Duty (AD), U.S. Army Reserve (USAR), and Army National Guard (ARNG).

### **Background**

Two years within the last twenty-seven years have been remarkable for their influence on today's military: 1973 and 1989. 1973 marked the end of the draft and the institution of the All-Volunteer Force (AVF), as well as the implementation of the Total Force Policy.<sup>1</sup> 1989 marked the end of the Cold War. These events have resulted in significant changes in the Army. Certainly, changes in the degree to which Reserve and National Guard components have been integrated into the Active force and in the Army's social demographics are attributable to the force policy and the AVF, as changes in the Army's missions and size have been a consequence of the ending of the Cold War. In the following section we consider the three issues, 1) component integration, 2) social demographics, and 3) Army missions and size.

---

<sup>1</sup> The promulgation of the Total Force Policy made the Reserve components full partners with the active forces in a structure that guaranteed that the active force would not deploy without the Reserves ( Segal 1997, 373).

### Integration of Reserves and National Guard

Many are aware of the history and the functions of the Active Component of the U.S. Army; however, the history and functions of the Reserve components may not be as well known. In fact, Reserve component members have been dubbed "weekend warriors," a label not in keeping with the history of the Reserve and National Guard and certainly not in keeping with their present day missions. As history will attest, the Reserve components have participated in most of the country's major conflicts. Most recently, more than 32,000 reserve component forces have cycled in Bosnia during the past four years. During the early 90s, in response to the invasion of Kuwait, the Army activated over 145,000 guard and reserve personnel, or about 20% of the available force.

The Army National Guard predates the founding of our nation and a standing military by almost a century and a half- and is therefore the oldest component of the United States armed forces. The Massachusetts Bay Colony organized America's first permanent militia regiments in 1636. Since that time the Guard has participated in every U.S. conflict from the Pequot War of 1637 to our current deployments. The Guard has the unique dual role in the U.S. Armed Forces of providing federal and state support. Federal law clearly sets forth the National Guard's federal role:

...to provide trained units and qualified persons available for active duty in the armed forces, in time of war or national emergency and at such other times as the national security requires, to fill the needs of the armed forces whenever, during and after the period needed to procure and train additional units and qualified personnel to achieve the planned mobilization, more units and persons are needed than are in the regular components.

Today the ARNG maintains more than half of the Army's combat power and approximately one-third of its Combat Support and Combat Service support force structure. The deployment for Task Force Eagle to help ensure compliance with the

Dayton Peace Accord was historic because it marked the first time a traditional Army National Guard unit took command of Active duty and multinational combat forces (Leonard, 1999).

The U.S. Army Reserve, having been founded only 92 years ago, is the youngest of the Army's three components; however, today the Army Reserve is the Army's essential support force. Many critical types of support units and capabilities are found either exclusively or primarily in the Army Reserves, including all of the Army's training divisions, railway units, enemy prisoner-of-war brigades and chemical brigades. In addition, it has most of the Army's civil affairs, psychological operations, medical and transportation units, and a large portion of its public affairs, engineer and power projection assets. While perceived as a community-based force of citizen-soldiers, the Army Reserve is equally an integral element of America's global power-projection strategy. It provides 41% of the Army's total personnel, 43% of the Army's total combat service support, 29% of the Army's combat support, 100% of the Total Army's training and exercise divisions, 100% of enemy prisoner of war brigades, and over 90% of the Total Army's judge advocate general and civil affairs units.

The first call-up of the Army Reserve came in 1916 as a result of tensions between the United States and Mexico caused by the Mexican bandit, Francisco "Pancho" Villa, and the subsequent punitive expedition after Villa led by Brig. Gen. John J. Pershing. By the end of June 1917, there were 21,543 officer reservists and 35,000 enlisted reservists dedicated to the Great War. Less than a decade earlier, reservists did not exist. Since World War 1, Army Reservists have taken part in every major conflict of the 20<sup>th</sup> century. For example, they took part in the 1983 Grenada and 1989 Panama



operation, administered help to the people of Central America after the devastation of Hurricane Mitch in 1999 and are currently performing peace-keeping operations in the Balkans.

As the USAR and NG soldiers take on duties and responsibilities closely reflecting those of the Active component, it is imperative to assess how well the spouses of these soldiers have become integrated into the military way of life as well. If spouses feel as though their lives have been disrupted with no just compensation or true provision of support, it is reasonable to expect they will experience diminished well-being and will have a negative attitude toward their soldier's continuing in the Reserves. If, however, they view the military and its way of life in a more positive manner, then their well-being and retention intentions may also be more positive.

#### The AVF Impact on Social Demographics

The AVF has led to a significant change in the social demographics of the force. In 1973 the AVF replaced the draft Army that was composed primarily of young, male, unmarried soldiers. Seventy-seven percent of officers were married, but only 24% of enlisted personnel (DMDC, 2000). Today's Army is older and more married with a 15% female component. On average, 55% of soldiers are married; about 70% of officers and 50% of enlisted personnel are married (DMDC, 2000). Altogether, 232,772 (49%) Army personnel have children; 48% of enlisted and 56% of officers. However, if we consider all family members, (spouses, children, and adult dependents), 60% of Army active duty personnel (married and single) have family members. Thus, the family factor has become critical to determining the overall quality of the Army. As noted by Segal over a decade ago, "The retention of trained career personnel requires attention to their family needs. If

family members are dissatisfied with military life, the service member is more likely to return to civilian life" (Segal, 1989).

The military life has never been an easy one. Married soldiers have found that military service places extreme demands on their family members and family life. These demands have been unique, not so much because of the nature of each individual demand (which includes risk of injury or death, geographic mobility, family separations, residence in foreign countries, and normative constraints on the behavior of spouses and children), but because of the concurrent, multiple demands associated with military life (Segal 1986). In addition to the above stressors<sup>2</sup> that are inherent in the military lifestyle, there are other factors that may have an impact on family well-being and retention. The factors that were selected as focal points for this paper are: soldier's pay, spouse employment, and the presence of children and elders in the home.

#### Soldier's Pay

For many families, a soldier's pay is not adequate. When comparing his/her pay and benefits with civilian workers, today's soldiers and their families experience feelings of relative deprivation.<sup>3</sup> The "pay gap" between military pay and private-sector wages is estimated to be about 13 percent. The Government Accounting Office (GAO) found that pay, particularly the level of basic pay, is the No.1 reason people leave the military (Maze, 2000). The GAO study also found that almost half the active-duty force has occasional financial problems and large numbers of people report having personal loans or credit card debts exceeding \$10,000. Despite Congress's establishing a five year

---

<sup>2</sup> A stressor is defined as any perceived feature of the environment that harms, threatens, or challenges a person (Thomas & Ganster, 1995)

<sup>3</sup> Relative deprivation refers to deprivation experienced when individuals compare themselves with others; individuals may sense they lack something when they compare themselves with those who have it, and in so do feel a sense of deprivation.

standard recommending that military pay be raised one-half percentage point more than average increases in the private sector, it would not close the pay gap for some 26 years (Maze 2000).

### Spouse Employment

In order to alleviate the financial strain imposed by a soldier's low wages, many spouses have entered the labor force. In the 1995 Survey of Army Families it was reported that 29% of spouses were working full-time and 19% were working part-time; an additional 15% were looking for employment. In total 63% of spouses were in the labor force and their number one reason for working, cited by 64% of respondents was because we "need the money for basic family expenses" (Griffith, Stewart, & Cato, 1998). The stress generated by poor financial situations may be exacerbated by the conflicts arising from the time that must be devoted to one's employment. Work/family conflict (WFC) occurs when the general demands of, time devoted to, and strain<sup>4</sup> created by the job, interfere with performing family-related responsibilities. (Netermeyer, 1996). Netermeyer suggests that there is an inverse relationship between organizational commitment and WFC, so employment and concomitant family life are important factors in the determination to stay or leave the Army.

In today's Army, work/family conflict may result not only from the demands of a soldier's job, but also by the demands of a spouse's job given that nearly half of all Army spouses are working. In the early 1970's only 36% of Army wives were in the labor force (Ickovics & Martin, 1987), but, as noted above, it is now over 60%. The increasing percentage of women in the labor force has been associated with women's increasing

---

<sup>4</sup> Strain refers to the psychological, physiological, and behavioral changes that occur as a result of exposure to stressors (Thomas and Ganster, 1995).

educational attainment, increasing demand for services provided by traditionally female occupations, changes in family and life patterns, and changing social norms (Mandelson 1997, 3.). In the last three decades, women's choosing to work has been met with ever-increasing acceptance. As Table 1 shows, a much larger percentage of both men and women in the 1980s approved of married women earning money than fifty years earlier.

Table 1. Proportion approving of a married woman earning money in business or industry if she has a husband capable of supporting her

Year	Women	Men	% of married women in the labor force
1938	25	19	15
1972	66	62	42
1975	71	69	45
1982	75	73	52
1986	76	78	55

Source: Sapiro 1994,408.

Little research has been done on military families that looks at the effect of wives' working on well-being and retention. Ickovics and Martin (1987) conducted a longitudinal study of Army couples that assessed the well being of enlisted Army wives who were employed versus not employed during the Army's effort to develop a unit replacement system for Combat arms units. Data were collected twice, once during the first three months of the unit's formation, and six months later. Regression analyses indicated that employment status was inversely related to well being. Women who were employed at both time points had a significant overall decrease in well-being scores compared to the other work status groups. Two potential explanations were given for

these findings: 1) the low pay and status of the majority of the jobs and 2) potential role overload.

Retention plans were studied for 124,590 military personnel from all branches of service whose spouses were in differing stages of employment (Griffith, Doering, & Mahoney, 1986). The findings showed that the husband's military retention plans were not significantly different across the wife's employment group status (employed, unemployed, and not in the labor force). For example, 31% of enlisted personnel with 1-6 years of service whose wives were employed stated that they had a high probability of re-enlisting. The same percentage of enlisted personnel whose wives were unemployed also indicated a high probability of re-enlisting. Thus in this study, rank and years of service may have played a larger role in the retention decision than employment status. When compared to enlisted personnel, it appears (no significance testing reported) that a higher percentage of officers indicated a greater probability of remaining in service whether or not the wife was employed. These percentages increased as the number of years of service increased (from 1-6 to 7-14 years) for both enlisted personnel and officers.

In another study of retention that looked at Air Force personnel and their spouses, employment was found to be predictive of career intentions (Lewis, 1985). However, it is interesting to note that the effect of employment itself was not assessed, but rather a sub-component of employment. Specifically, regression results showed that if the couples' work schedules were not compatible, then the career intent of the Air Force member was less positive.

### The Presence of Children

Almost half (46%) of military members have children. Of the military members with children, the majority (81%) were enlisted with E-5 –E-6 being the largest rank group with children. As shown in Table 2 within the Army, E5-E6 is also the rank group with the largest percentage of children, followed by the E1-E4 rank group.

Table 2. Number of Army Members with Children by Rank

E1-E4	E5-E6	E7-E9	W1-W5	01-03	04+	Total
58,608	88,638	42,339	8,696	14,196	20,295	232,772
25%	38%	18%	4%	6%	9%	100%

Source: Military Family Resource Center 2000, p.31

. The young age at which couples have children (overall the mean age at the birth of the first child is 24) and their status as junior enlisted present problems for the military and for families as well. In 1993, then commandant of the Marine Corps, General Carl Lundy, ordered that married persons could no longer enlist in the Marine Corps after 1995 as families of first term enlistees, he felt, had such a detrimental impact on the Corps. His order was immediately revoked but the order stands as an example of the perceived problem of spouses and children for the military.

As noted by Johnson and Huston's (1998), research in the late 1950s and early 1960s characterized parenthood as a crisis for couples (Dyer, 1963; Lemasters, 1957). More recent research has identified both positive and negative aspects of parenthood, as well as variation in the effects of a first child on the marital relationship (Belsky & Kelly, 1994; Cowan & Cowan, 1992; Huston & Vangelistis, 1995.) Some research shows that families with young children and those with a large number of children may have greater problems (Abbott & Brody, 1985; Menaghan, 1983). Johnson and Johnson (1980)

hypothesized that it may not be the mere presence of children that affects marital disruption but variables related to the presence of children. For example, the presence of children requires more of parents; they must take on new roles, and it becomes difficult to perform role behaviors effectively given the increase in demands generated by children.

The employment status per se of married mothers with young children, like that of married mothers of school age children, has not proved to be a particularly powerful predictor of individual well-being. Windle and Dumenci (1997), found that parental and occupational stress, marital satisfaction and family cohesion were relevant to the prediction of depressive symptoms in adults. Umberson and Williams (1993) found that parental satisfaction appears to be related positively to parents' health and well-being. Concerns have been raised about the presumed higher prevalence of psychopathology in military families. Parental absence, frequent moves, and the lack of family and environmental stability have been blamed for upsetting the child who has been called a poor student, undisciplined, or a "military brat" (Wertsch, 1991). In fact, the term "Military Family Syndrome" (LaGrone, 1978; Wertsch, 1991) has been used pejoratively, typically to describe a family characterized by an authoritarian father, a depressed mother, and out-of-control children. However, in their summary of research concerning the stereotyping of military families, Watanabe and Jensen (2000) found this description was based on anecdotal evidence from poorly drawn samples rather than from scientific studies examining the nature and extent of psychopathology in military families. They found that studies conducted over the past three decades actually indicate that military children function better than their civilian counterparts. They note the work of Kenny (1967) who found that children of military parents had a higher median

intelligence quotient, a better school achievement record, fewer emotional disorders, and a lower incidence of juvenile delinquency.

Research has indicated that family structure is associated with parenting satisfaction (Rogera & White, 1998). Measures of the quality of the parent-child relationship (Fine & Kurdek, 1995) and parental satisfaction (Ishii-Kuntz & Ihinger-Tallman, 1991) are lower for stepparents than for biological parents. Ishii-Kuntz and Ihinger-Tallman report that it is not remarriage but the parenting of stepchildren that is problematic. The extent to which Army families have stepchildren is difficult to determine. In the 1995 Survey of Army Families (SAF), for example, when they ask about children, they simply refer to children as:

Dependent children are UNMARRIED children, including adopted children or stepchildren who are legally dependent on you for over half of their support.

Findings have been mixed on what impact the presence of children has on retention. A 1985 DOD Survey of military personnel and their spouses found that officers and enlisted who had either preschool (0-5 years) or school age (6-11 years) children were more likely to plan to re-enlist, or for officers, plan to stay in service for at least 15 years (Griffith, Doering, & Mahoney, 1986). Other studies have also focused on the relationship between having children and retention intentions. In a study of Navy officers and enlisted personnel, those with no children were the most likely to leave, while those who had children less than five were more likely to leave than those who had children between the ages of 5-12. However, other studies have not shown a relationship between having children and retention intentions (Mohr, Holzback, & Morrison, 1981; Wood, 1990). While yet other studies have actually shown a reduction in retention for those with children (Orthner, 1990).



Eldercare

In the 1992 DOD Survey of Officers and Enlisted Personnel and Their Spouses (DMDC 1994), 6.5 percent of military families reported claiming an elderly relative as a dependent and an even higher percentage (8.2%) reported having responsibility for elderly relatives. For Army families those figures were 6.1 percent and 9.4 percent respectively. Those figures are likely to increase as more people are living longer. Only twenty years ago the United States had a population of 25,549,000 over 65 years of age; by the end of 2000 that figure was projected to have increased by more than 9 million to 34,709,000. In 1970 the expectation of life at birth was 67 years for males and 75 for females; the expected life for males in 2000 was 73 years and for females 80 years.

Of those persons 65 or older, some 17 million will be living with a spouse. The most common form of living arrangement today for both the retired and those still in the labor force is as head of a household in which only the spouse is present. However, nine million persons 65 or older will be living alone and the rest of that population will be in institutions or some other living arrangement. The increase in the proportion of the elderly who live alone represents one of the more profound changes in the social and economic life of the aged. In 1880, 46% of retired men older than 64 lived in the households of their children, but by 1950 the figure was down to 20 percent, and by 1990 it was only 5 percent (Costa, 1997).

Most analysts interpret these changes as the result of increases in affluence that have allowed previously dependent relatives to split off from the nuclear family to live in a home of their own (Goldscheider, 1998). However, changes in preferences may have been as important as increases in affluence in the splitting off of extra relatives from

American families. (Goldscheider, 1998). Filial responsibility was once held as a societal expectation, but now there is variation in how persons perceive that responsibility because of competing demands. If children have their own family and work responsibilities, obligations to parents may often compete with the other obligations of daily life (Schulman, 1975). Women's growing labor-force participation makes it difficult for the adult daughter, traditionally the care providers for parents, to give their parents support (Dwyer & Coward, 1991). It is more difficult for children, particularly daughters, to give support if they have to care for their own offspring, certainly if their children are young. When the demands of providing care compete with family and work responsibilities, additional stress is created (Soldo, 1983).

### The Army Missions and Size

In the late 1980s the world witnessed the collapse of the Warsaw Pact and the Soviet Union. The Cold War had ended. There were several schools of thought regarding what would happen to U.S. military forces with the two formerly adversarial super powers at peace. Four perspectives are cited by Segal and Segal (1993). The "end of history" perspective (Fukuyama, 1989) envisioned the obsolescence of military force and the peaceful global spread of liberal capitalism. The "retreat from history" perspective (Tonelson, 1989) viewed the U.S. as becoming isolationistic, divesting itself of internal responsibilities and maintaining a limited number of troops for defense of the United States. The third perspective, "return to history," (Mearsheimer, 1990) predicted that with the elimination of the superpowers, nationalist, regional, and religious antagonisms would erupt and the U.S. military would be called on once again to defend allied or other friendly nations. The "challenge to history" perspective (Sanders, 1992) assumed that

there would continue to be a rise, diffusion, and decline of military powers, but it allowed that the military might take on new military missions in the quest for international security.

Shortly after the end of the Cold War in 1990-1991, the United States engaged in a major air-ground conflict with Iraqi forces in the Persian Gulf. But as assumed by the "challenge to history" perspective, one major consequence of the end of the Cold War has been the taking on of new missions "other than war." These include humanitarian assistance, peacekeeping operations that support diplomatic efforts to maintain peace in areas of potential conflict, and peace enforcement operations that support diplomatic efforts to restore peace between hostile factions that may not consent to intervention (Segal & Segal, 1993).

The increase in missions is clearly indicated by the fact that since 1989, the average frequency of Army contingency deployments has increased from one every four years to one every fourteen weeks (United States Army Posture Statement FY01). The decrease in personnel is evident when we calculate that in 1973 the AD had over 800,00, the USAR 1,753,000 and the ARNG 387,000 (U.S. Department of Commerce 1980) and at the end of FY 1999, the AD had 479,426 soldiers; the USAR had 206,836 and the ARNG had 357,469 (U.S. Army Posture Statement FY01).

Given the drawdown of personnel and the increasing number and complexity of missions, the result has been that soldiers are deploying more frequently and spending more time away from their homes and families. Today's typical AD deploying soldier spends 138 days away from the barracks or home (Wong, Bliese, & Halverson, 1995). But time away from home is not restricted to the AD. The Reserve and National Guard

components have been called upon to execute missions that once were the responsibility of the active forces; therefore, USAR and ARNG personnel are also spending more time away from their families.

Separation from the soldier may result in feelings of loss and depression on the part of the spouse (Office of the Assistant Secretary of Defense, 1993). Adler, Bartone, & Vaitkus (1995) assessed the effects of deployment on spouses whose soldiers were on a peacekeeping mission in Croatia and found that over half of the spouses reported sleep problems and that more than a third reported a loss of appetite. In another study of health outcomes that included Navy wives, spouses whose husbands were deployed were not significantly different in terms of physical or psychological symptoms reported when compared to wives whose husbands were not deployed except for depression (Nice & Beck, 1980). Those wives whose husbands were deployed had significantly higher depression scores during the pre and mid-deployment phases than did the non-separated wives. During the deployment, separated wives also went to the doctor significantly more than did the non-separated wives. This study also assessed the effects of the separation on attitudes towards reenlistment. Over the course of the deployment, wives attitudes toward reenlistment became less positive in both separated and non-separated wives.

Deployment stage was also associated with well-being, specifically anger has been found to be greater in spouses prior to deployment (Van Vranken, Jellen, Knudson, Marlowe, & Segal, 1984; Hunter & Hickman, 1981). However, separation has not always been linked to negative health outcomes. Positive outcomes may include the opportunity for the spouse to develop independence and self-sufficiency (Coolbaugh & Rosenthal, 1992; Hunter & Hickman, 1981; Schwartz, Braddy, Griffith, & Wood, 1988).

Separation anxiety and its relationship to retention was the focus of an Army study of spouses separated from their soldiers (Coolbaugh & Rosenthal, 1992). Findings from this study indicated that there were no significant correlations between spouses' scores on the separation anxiety scale and the soldier's stated likelihood of staying in the Army at the end of his/her current obligation. However, a significant correlation emerged between spouses anxiety scores and the desire for their soldier to remain in the military. The relationship suggested that the greater the separation anxiety, the more likely the wife was to favor her husband leaving the Army at the end of his current obligation. Additionally, the spouses who reported having handled their last extended separation experience somewhat or very well were more likely to view an Army career favorably than were spouses who did less well. In a study of Air Force spouses, separation did not play a significant role in predicting career intent. Separation was measured in the form of TDY frequency and TDY length. However, a positive view of the Air Force was a significant predictor and this variable may be tied to the frequency and length of separation. Thus, it may not be that physical separation is important to retention, but rather the perception of the separation (Lewis, 1985).

The combination of fewer personnel and more missions has consequences for soldiers even when they are in garrison. They may be spending more hours on the job and those hours may be highly unpredictable. In the 1987 Survey of Army Families, 39% of spouses said that the soldier seldom came home when expected at the end of the duty day. The study found that uncertainty about the soldier's work schedule contributed significantly to lower psychological well-being among Army spouses (Rosen & Moghadam, 1991). By 1995 the situation had worsened. Fifty-six percent of spouses

reported that they would not know when their husbands would be able to leave work at the end of the duty day; 49 percent reported that their husbands would often be unexpectedly kept at work beyond normal duty hours, and 28 percent noted that their important plans had to be canceled due to soldiers' unpredictable work schedules. (Rosen & Durand, 2000).

### **Research Questions**

The institution of the All-Volunteer Force and the Total Force Policy and the end of the Cold War had a major impact on the Army. What have been the consequences of these events? This study seeks to answer the following questions to determine some of the consequences:

1. DOD seeks to create a totally integrated force in which reserve components can seamlessly substitute for active duty troops when needed. To what extent have the spouses from the Army Reserve and National Guard become integrated into the military and the military way of life? How does their degree of integration compare to the spouses of active component soldiers? Is their integration into the military way of life related to spouse's well-being and their desire for soldiers to remain in the military?
2. In today's married military, certain stressors are assumed to have an impact on family well-being and soldier retention. What is the relationship between soldiers' pay, spouse employment, presence of children and eldercare, marital satisfaction, and spouse health and retention preferences?
3. The past few years have led to a greater number of missions and fewer Army personnel. As soldiers spend more time away from home, what is the effect on

their spouses' well-being and their desire for their soldiers to remain in the military?

## **Research Methodology**

### **Sample**

This study of Army spouses was one part of a study that surveyed both soldiers who were not deployed and their spouses throughout the III Corps area. A large Army post in the continental United States was chosen as the primary site for research on the active duty component. Nine hundred and ten active duty soldiers from combat, combat support, and combat service support units participated in the soldiers' survey that examined the same variables as covered in the spouse survey. Soldiers were chosen to participate in the survey by the post Umbrella Week<sup>5</sup> tasking officer based on their availability. Thus, it was a convenience sample.

The spouse sample was derived from the soldiers' sample. Units that participated in the soldiers' study were requested to provide the names and addresses of unit spouses, but because of privacy concerns only a few did so. Approximately two hundred and fifty names were provided and questionnaires were mailed directly to those spouses. Units that did not provide names and addresses were given questionnaires so they could distribute them. Of the 902 active duty soldiers who responded to the marital status question, fewer than half (444) were married. One hundred and thirty seven active duty spouse questionnaires were returned for a 31% response rate.

The sample for the Reserve and National Guard was obtained in a similar manner. The Reserve soldier sample comprised 10 units from three states in the Western part of

---

<sup>5</sup> Umbrella Week was established by FORSCOM to allow researcher to Access to Active component forces on week a year. The program was designed to minimize disruptions to scheduled training Activities.

the United States, while the National Guard sample was based on 17 units from one Western State.

There were 781 National Guard soldiers, 67% ( $N = 523$ ) who were married while the Reserve soldier sample had 766 married soldiers, 54% ( $N = 417$ ). There were 398 questionnaires returned from National Guard spouses (76% return rate) and 174 from the Reserve spouses (42% return rate).

### **Demographics**

Of those spouses who participated, 90% were female and 8% were male. The mean age of the participants was 35. With regard to education, only 1% of the participants had less than a high school education. Twenty-two percent had a GED or high school diploma; 66% had some college or a college degree; and 10% had some graduate training or a graduate degree. The majority of participants (89%) were Caucasian; 4 % were Hispanic, 2% African-Americans, 2% were either Asian, Native American or other and 2% were multi-racial. Significant differences among the three components were not found with regard to education levels. However, some demographic differences were found among the components. Army Reserve and National Guard spouses were significantly older than active duty spouses ( $F = 37.17$ ,  $p < .000$ ) and employment differences also emerged  $X^2 = (2, N = 701) = 7.70$ ,  $p = .021$ . Of active duty spouses, 56% were working while 66% of National Guard spouses were working and 71% of Army Reserve spouses reported being employed.



### **Survey Instruments**

Separate questionnaires were developed for spouses of each component of the total Army. Each addressed the issues of component integration, social demographics, and missions. However, within each questionnaire there were questions specific to a component; e.g., the AD questionnaire asks spouses if they agree that TRICARE is an excellent way for the Army to provide medical care to its soldiers and spouses. Such a question is not relevant to the USAR or ARNG when soldiers are deployed and thus was not addressed in the analyses. The issues that were addressed by the questionnaires are outlined below.

#### Integration of the Reserves and National Guard

The AD families have long been closely linked to the military way of life, however, Reservist families, in general, have not had such ties. With the implementation of The Total Force Policy, we questioned whether the USAR and ARNG families were becoming more closely associated with the military. We explored the integration of families with the military way of life with a series of questions that concern preferences for military or civilian programs, supports and services.

The Army offers two programs to assist spouses in adjusting to the military way of life: Family Support Groups (FSG) and Army Family Team Building (AFTB). An FSG is an organization of family members, volunteers, and soldiers belonging to a unit that together provides an avenue of mutual support and assistance, and a network of communications among the family members, the chain of command, and community resources. AFTB is "Training for a way of life that prepares everyone in America's Army to function at one's highest level, in any situation, with minimal outside support. This

training improves personal and family preparedness, which enhances overall Army readiness" (AFTB, Maryland, 2002). The spouses were asked if their units had FSGs, if they attended meetings, and if they found the FSG beneficial in helping them cope with the Army way of life. Likewise, they were asked if they had received training in AFTB and if it was beneficial in helping them cope with the Army way of life.

We asked spouses about the problems they face in their lives and then, where they go for support or help with those problems. We presented a list of 10 possible problem areas for families and asked spouses: "To what extent have you experienced in your family any of the following problems in the last six months?" The answer options were rated on a 5- point likert scale with categories "very great extent" to "not at all". The areas to be considered were: 1) a job related problem, 2) emotional or nervous problem, 3) drug/alcohol related problem, 4) marital problem, 5) child care problem, 6) financial difficulty, 7) family violence, 8) parenting difficulty, 9) serious illness, and 10) problem pregnancy/childbirth.

We then followed up with a two-part question regarding where they would go if they needed support: "Many spouses need support at some time- whether it is someone to talk to is someone to talk to or someone to help with a specific problem. Below are listed persons or agencies where one might go for support." The first part of the question was: "Please indicate how likely you are to seek support from each." The resource choices were: 1) Your spouse, 2) Your children, 3) Your extended family (parents, siblings, etc.), 4) A clergyman from the civilian community, 5) Members of your church/mosque, synagogue, 6) Your boss, 7) Co-workers, 8) Friends/neighbors not associated with soldier's unit, 9) A soldier from your soldier's unit, 10) A spouse from your soldier's

unit, 11) Army Community Service (ACS), 12) Army Emergency Relief (AER), 13) An Army Chaplain, and 14) Your Family Support Group (FSG). The second part of the question was: "Please indicate how often you have gone to that person or agency for support during the past year." The four response categories were: 1) not at all, 2) a few times, 3) moderately, and 4) very often. There were two other questions that looked at military associations: "Are you friend with the member's of your soldier's unit?" and "Are you friends with the spouses of unit members?"

An "integration score" was developed based upon spouses answering "yes" to attending FSG and AFTB meetings and to having friends in the unit or were friends with spouse of unit members and answering "very likely" or "somewhat likely" (coded as yes) to seek support from Army resources (AER, ACS, chaplain). The scores could range from 0 to 7 with 7 showing the highest degree of integration with the military.

#### Social Demographics

Data collected on spouses included questions about the spouse's gender, age, race/ethnicity, education, financial status, employment, responsibilities for children and elders as well as marital satisfaction.

Several questions addressed the financial status within families. 1) "Do finances cause problems in your family?" The five possible answers ranged from "no problems" to "very great problems." 2) "How much debt (excluding mortgage payments) do you have at present?" The spouses could choose from seven categories showing debt ranging from "none" to "over \$30,000. The following two questions were answered using a likert scale, "strongly agree to strongly disagree." 3) How much do you agree with the statement, "My soldier's Army pay is adequate to meet our basic family needs for food,

shelter, clothing, transportation, health care, and child care;" and 4) How much do you agree with the statement, "Our total family income is adequate to meet our basic needs. The families were asked about seeking help for any financial problems: "Where have you or your soldier gone for advice on household budgeting/finances?" They could choose any of the following: I /we have not gone for advice; Unit finance sergeant; Other Army finance counselors; family members; friends.

#### Employment status

We asked spouses who were working if they were working as civilians or military, full-time or part-time, their reasons for working, and how much they enjoyed their work. Likewise, we asked spouses who were not working their reasons for not working and how much they enjoyed not working.

#### Presence of Children and Eldercare

Children and eldercare were of interest as they may either promote or alleviate stress within a family unit. We asked if there were children living at home with the family, how many, and what their ages were. We also inquired if the family was blended, which we defined as a family consisting of a husband and wife, children of previous marriages, and any children from the current marriage. The question, "To what extent do you find having children at home to be an enjoyable experience," was answered on a 5 point likert scale from "very great extent" to "not at all."

Eldercare was addressed by the following questions: 1) "Do you or your soldier have responsibility for parents or other adult relatives?"; 2) "If yes, how many are you responsible for?"; 3) "What kind of responsibilities do you have for these parents or adult relatives?"; 4) "To what extent do you find these responsibilities to be a burden?"

Marital Satisfaction and Conflict

To assess the marital relationship, we asked the following: "How satisfied are you with your marriage at the present time" and "There are many reasons why couples have conflicts. How frequently is there conflict in your marriage?" The first question had five possible answers ranging from "very satisfied" to "very unsatisfied." The second part had five answers ranging from "very often" to "never."

Army Missions and Size Consequences.

To evaluate the effect on families of new Army missions resulting in more frequent deployments and increasing time spent away from home, we asked how many months during the year the soldier had been away from home because of training, field exercises, or deployments and how stressful the family found these to be. Additionally, we asked how much spouses agreed with the statement: "My soldier spends too much time away from home because of the Army." We asked spouses how they felt about their soldiers' work environments when they were not deployed or in the field. Were duty hours predictable? Did they feel their soldier's job in the Army was secure? How much did they think their soldier enjoyed his/her job?

Outcome Variables: Well-being and Retention

Physical and Psychological Health

Physical health was measured through a self-assessment of one question: "How would you rate your current state of physical health?" The five possible responses ranged from "excellent" to "very poor". Questions also addressed the individual's smoking and drinking habits. We used the four-item CAGE scale to determine if there was an alcohol abuse problem. (Key words, as italicized below, form the acronym CAGE). 1) Have you

ever felt you should *cut* down on your drinking? 2) Have people *annoyed* you by criticizing your drinking? 3) Have you ever felt *guilty* about your drinking? 4) Have you ever had a drink first thing in the morning (an *eye-opener*) to steady your nerves or get rid of a hang-over? A validation study (Mayfield, McLeod, & Hall, 1974) of 366 hospitalized psychiatric patients demonstrated that 90% of the 142 known alcoholics could be correctly identified by their CAGE responses. A score of 2-3 indicates a problem with alcohol. Participants were also asked how much alcohol they consumed in a typical week and scores were categorized from 1= none to 5 = 10 or more.

Smoking behavior was determined by the question: "Which statement best describes your smoking habits in the last year?" The statements were: 1) I have never been a smoker, 2) I smoked but quit, 3) I smoke 10 or fewer cigarettes a day, 4) I smoke 11-19 cigarettes a day, and 5) I smoke more than 20 cigarettes a day.

The individual's psychological health was evaluated by the Center for Epidemiological Studies for Depression Scale (CES-D). The CES-D consists of 20 questions chosen to reflect various aspects of depression including depressed mood, feelings of guilt and worthlessness, helplessness and hopelessness, psychomotor retardation, loss of appetite, and sleep disturbance (Radloff, 1977). Respondents reported the frequency of occurrence for each item during the previous week on the following 4-point scale: 0 (rarely, that is less than 1 day), 1 (some of the time, 1 to 2 days), 2 (a moderate amount of the time, 3 to 4 days), or 3 (most or all of the time, 5 to 7 days). Summary scores can range from 0 to 60. A score of 16 is thought to be associated with symptoms of clinical depression.

### Retention Intentions

We asked the spouses what their soldiers' retention intentions are. 1) My soldier wants to make the Army a career; 2) My soldier wants to stay in the Army after his/her current enlistment/tour, 3) My soldier wants to get out at the end of his/her current enlistment /tour, 4) My soldier wants to get out of the Army before the end of his/her current enlistment/tour. Spouses were asked if they agreed with their soldiers' retention intentions, and if not, what they would prefer their soldiers to do.

### **Findings**

First, we will discuss the overall findings for the outcome variables of physical and psychological health and well-being and then proceed with the findings on component integration, social demographics, and mission and change in reference to the outcome variables.

### Retention

The majority of spouses want their soldiers to make the Army a career or stay in beyond their current enlistment or tour (Table 3). However, we can see the active component spouses did not have the same preference for their soldiers staying in the Army as did the spouses in the other components. Cross tabulations indicated a significant difference in spouse retention preference among the three components  $\chi^2(2, N = 652) = 23.34, p = .000$ . Only 66% of AD spouses wanted their soldier to remain in the Army compared to 80% of USAR spouses and 86% of ARNG spouses.

Table 3. Spouses' Preferences for Soldiers' Retention: AD, USAR, ARNG.

Spouse Retention Preference	AD	USAR	ARNG
"I would prefer that my soldier:	%	%	%
Make the Army a career	55	69	70
Stay in Army after enlistment/tour	12	11	16
Get out of Army at end of enlistment/tour	29	14	12
Get out of Army before end of enlistment/tour	5	6	2

Part of the reason for the differences in retention preference may be attributed to the differences in soldiers' ages and years in service. ANOVAs indicated significant differences in age and years of service between the Reserve components and the active duty component ( $F = 202.57, p < .000$  and  $F = 177.62, p < .000$ , respectively). The soldiers' mean age across the components was 30 with a mean of 9 years in service. For the active army the mean age was 25 with 5 years of service while in the National Guard the mean age was 33 with 11 years and for the Reserves the mean age was also 33 with 11 years of service. Increases in soldier age ( $r = .34, p < .01$ ) and years in service ( $r = .33, p < .01$ ) were associated with the spouse preferring that the soldier remain in the Army.

In order to further examine the age/retention relationship and to determine if the effects of service component still were significant regardless of age, a logistic regression was performed. First, correlations between spouse and soldier age were computed indicating multicollinearity ( $r = .91, p < .01$ ), and correlations between soldier age and years of service were computed, also indicating multicollinearity ( $r = .87, p < .01$ ). Thus for the purpose of parsimony, only the soldier's age was partialled from the service components in the regression equation. As can be seen in Table 4 soldier age was a significant predictor of retention preference as was being a National Guard spouse. Thus, National Guard spouses were more likely to want their spouse to remain in service than



the Army Reserve spouses but active duty spouses were not significantly more likely to want their spouse to remain in service than Army Reserve spouses.

Table 4. Logistic Regression of Soldier Age, Service Component and Retention Preference

Variable	b	SE	Wald	p	e <sup>b</sup>	CI (odds)
Age	.095	.014	48.050	.000	1.100	1.070-1.129
AD spouse	.073	.307	.057	.811	1.076	.590-1.963
ARNG spouse	.587	.267	4.840	.028	1.798	1.066-3.034
Constant	-2.090					

We asked respondents what effects the particular issues selected for this study had on their preference for having their soldiers stay or leave the Army. As shown in Table 5 the greatest percentage of spouses reported that most issues had no effect. Pay and allowances had the most positive effect on retention preference while the time the soldier spends away from home had the most negative effect.

Table 5. Issues Affecting Retention Preferences of Army Spouses

Effect of issue on spouse retention preference	Very positive effect %	Positive effect %	No effect %	Negative effect %	Very negative effect %
Time soldier spends away from home	2	10	44	34	9
Their marriage	5	21	60	13	2
Parenting responsibilities	3	17	58	22	2
Responsibilities for elders	<1	7	88	3	1
Army friendships	3	17	58	22	2
Pay and allowances	13	49	24	10	5
Army support programs	2	14	79	3	2

## **Well-being**

### Physical Health and Health-related behaviors

Three questions were used to determine spouses' physical health and related behaviors: 1) self-report of their health; 2) number of cigarettes smoked per day, and 3) number of alcoholic drinks consumed in a week. In addition the CAGE scale was used to determine if spouses had alcohol abuse problems. Over 95% of all spouses reported their current state of physical health in the average to excellent range. Ninety percent of spouses were non-smokers and 80% reported that they do not drink any alcohol in a typical week. CAGE scores indicated that 95% of the spouses had scores in the 0-1 range, thus indicating that only a small percentage met the criteria for alcohol abuse (scores of 2-3).

### Psychological Health

We chose the CES-D to assess the psychological health of spouses. The assessment indicated that the spouses were doing well psychologically. The CES-D cutoff point of 16 denotes clinical depression. Almost three-quarters of all spouses had scores of 15 or lower with a mean score 12. In the following sections we will be looking at how specific issues relate to our outcome variables of retention and well-being.

### Integration of the Reserve and National Guard

Using our indicators of integration, the data suggested that the USAR and ARNG spouses were not integrated into the military way of life to any great degree. Table 6 shows that only about half of the reserve components have Family Support Groups (FSG) and where they were available, only about one-fifth of spouses attended meetings.

Similarly, only about 20% of them have taken AFTB training. Approximately half of ARNG spouses claimed no friends in the unit, as did 70% of USAR spouses.

There were significant differences between the reserve component spouses and Active component spouses on all these measures. Significant results emerged on whether or not they attended Family Support Group meetings ( $X^2 = (2, N=494)=67.62, p=.000$ ). There were significant differences on who attended AFTB training ( $X^2 = (2, N = 663) = 77.87, p = .000$ ). Likewise there were significant differences on whether they had friends in the unit; with regard to having soldiers as friends ( $X^2 = (2, N=697)=34.70, p=.000$ ); with regard to having unit spouses as friends ( $X^2=(2, N=693)=34.95, p=.000$ ). However, while there were significant differences between AD spouses and the Reserve component spouses, it was found that when using these indicators even AD spouses were not strongly integrated into the military way of life; a large percentage of AD spouses did not attend FSGs, take AFTB training, or have friends in the unit as indicated in Table 4

Table 6. Indicators of Integration into the Military Way of Life:  
AD, USAR, and ARNG Spouses

Integration Indicator	AD Spouses %	USAR Spouses %	ARNG Spouses %
Does your soldier's unit have a FSG? <b>"Yes"</b>	88	52	54
If yes, do you attend FSG meetings? <b>"I do not attend"</b>	43	86	79
Have you taken AFTB training? <b>"I have not taken AFTB training"</b>	57	77	83
Are you friends with members of your soldier's unit? <b>"No, I have no friends in the unit"</b>	34	68	49
Are you friends with the spouses of unit members? <b>"No, I have no friends who are unit spouses"</b>	44	76	53

Another indicator of integration was the use of unit or formal Army support programs for problems. With the exception of financial problems that will be discussed in the Social Demographics section, as shown in Table 7, most spouses reported they had not experienced problems in their families in the last six months. Only a small percentage of spouses experienced problems to a very great extent.

Table 7. Extent to Which Army Spouses Experienced Problems:  
AD, USAR, and ARNG

Type of Problem	AD Spouses		USAR Spouses		ARNG Spouses	
	Did not experience %	Experienced to a very great extent %	Did not experience %	Experienced to a very great extent %	Did not experience %	Experienced to a very great extent %
Job-Related	38	8	37	4	38	6
Emotional	51	3	46	4	48	4
Drug/alcohol	94	<1	92	<1	94	<1
Marital Problem	58	5	59	2	61	4
Childcare	66	5	75	<1	77	1
Family Violence	93	---	89	---	95	<1
Parenting	75	<1	59	<1	55	1
Serious Illness	87	---	76	3	81	2

We asked spouses how likely it would be for them to seek support from the unit, Army formal support programs, or others for their problems. Spouses indicated that if there were problems, most, to include AD spouses, would not seek support from either the unit or Army formal support programs. With the exception of the likelihood of seeking support from a Chaplain, where 22% said they were likely to seek that resource for support, fewer than 20% of Active component spouses would be likely to use formal Army support services and only 29% would use informal support of other unit spouses. Spouses' preference for support outside the military is evident in Table 8 which shows

## Army Spouses' Health and Retention Preferences

the percentage of spouses within each component who would be “very likely” and “somewhat likely” to seek support from a particular resource.

Table 8. Likelihood of Army Spouses Using Resources for Support:  
AD, USAR, and ARNG

Resource	AD % likely to use resource	USAR % likely to use resource	ARNG % likely to use resource
<b>Unit Resources:</b>			
A soldier from your soldier's unit	7	2	4
Another spouse from your soldier's unit	29	8	10
Your FSG	13	7	4
<b>Army Resources:</b>			
Army Community Service (ACS)	13	4	2
Army Emergency Relief (AER)	16	4	3
Army Chaplain	22	9	4
<b>Other:</b>			
Spouse	89	91	90
Children	36	53	57
Your extended family (parents, siblings, etc.)	75	70	78
Friends/neighbors not associated with soldier's unit	53	61	56
A clergyman from the civilian community	20	42	42
Members of your church/mosque/ synagogue	24	48	57
Your boss	15	27	19
Co-workers	28	40	37

In addition to asking spouses how likely they were to use a certain resource they were also asked how often they actually used these resources. Table 9 indicates the percentage of spouses who moderately or very often sought support from the military community.

Table 9. How Often Army Spouses Actually Used Military Resources for Support:  
AD, USAR, and ARNG

Resource	AD % moderately/very often used resource	USAR % moderately/very often used resource	ARNG % moderately/very often used resource
<b>Unit Resources:</b>			
A soldier from your soldier's unit	2	1	1
Another spouse from your soldier's unit	11	2	2
Your FSG	4	1	< 1
<b>Army Resources:</b>			
Army Community Service (ACS)	< 1	2	1
Army Emergency Relief (AER)	< 1	2	1
Army Chaplain	3	2	1

As can be seen these resources were used by very few of the spouses, although they stated that they were likely to use such resources. Paired comparisons could not be used to determine if there were significant differences between the likelihood of using these resources and the actual use as the scales used to measure these variables were different. Integration into the military community was not significantly correlated with any of the physical, behavioral or psychological health measures. However, it was significantly correlated with the spouse's desire for their soldier to remain in the military ( $r = .12, p < .05$ ). Spouses who felt more integrated indicated a desire for their soldiers to remain in the military.

### Social Demographics

#### Financial Stability and Spouse Employment

Approximately 15-19% of all spouses reported that finances did not present problems in their families. On the other hand, more than 40% of AD spouses and 30% of Reserve and National Guard spouses reported that finances caused problems in their families to a moderate or a very great extent. Ninety percent of the sample was

comprised of enlisted soldiers and of the enlisted soldiers in our sample, 55% were E-4 and below. Yet 12% of active duty spouses, 18% of USAR spouses and 13% of ARNG spouses reported that they had over \$30,000 in debt, not to include their mortgages. Approximately 8% of spouses claim to have no debt (Table 10).

The level of family debt was not significantly correlated with retention preference or physical or health related behaviors measures; however it was found to be associated with depression scores ( $F=2.48$ ,  $p<.02$ ). Those families who had debts between \$20,000-30,000 had significantly higher depression scores than those with no debt at all. The mean depression scores for those with no debt was 9.62 ( $SD = 7.94$ ) and for those with \$20,000-30,000 dollars worth of debt, their mean score was 14.30 ( $SD = 11.56$ ) which closely approaches the score of 16 used as an indicator of potential clinical depression. Significant differences in depression did not emerge between the other debt categories.

Table 10. The Extent of Debt (excluding mortgage payments) for Army Families: AD, USAR, ARNG

Amount of Debt	AD Spouses %	USAR Spouses %	ARNG Spouses %
No Debt	8	8	9
Less than \$5000	32	22	21
\$5000 - \$10,000	15	18	18
\$10,000 – \$20,000	23	20	23
\$20,000 - \$30,000	11	14	17
Over \$30,000	12	18	13

Two-thirds of active duty wives did not believe that their soldier's Army pay was adequate to meet their basic family needs which were defined for this study as food, shelter, clothing transportation, health care and child care. Likewise, 46% of USAR spouses and 86% of ARNG spouses were mostly/very much dependent on their Reserve and National Guard pay.

Of the 76% of active component wives who were in the labor force, when asked why they were working, 58% reported needing money for basic expenses as their primary reason. Of the 78% USAR and the 69% of the ARNG who were in the labor force, 59% and 66% respectively, said needing money for basic expenses was their reason for working. To have a career was reported as the primary reason for working by only 11% of AD spouses, 12% of USAR spouses, and 9% of ARNG spouses. Even in the AD families where the spouses was working, 45% of them still did not find the total family income is adequate to meet their basic needs. A significant correlation was found between family debt and employment ( $r = .22, p < .01$ ) with higher debt being associated with being employed. However, it is unclear whether the debt preceded or followed employment. Unemployment was associated with increased disagreement that the family income was adequate ( $r = -.30, p < .01$ ) for AD spouses. The extent to which USAR spouses felt dependent on their soldier's income was also correlated with employment ( $r = .15, p < .05$ ). Being employed was associated with a lesser degree of dependency on the Reserve soldier's income. This finding was not significant for ARNG spouses.

Correlations between the perceptions of the adequacy of the active duty soldier's Army pay and retention as well as perceptions of the adequacy of the total family income were not significantly correlated with the spouses' retention preferences for the active component. Similar findings emerged for the Reserve component. However, for the National Guard component the extent to which the spouses felt dependent on their soldier's pay was associated with retention preference ( $r = -.23, p < .01$ ). Wanting the spouse to remain in the National Guard was associated with a greater feeling of dependency on their spouse's National Guard income.



Spouse employment was not correlated with retention preference nor was it correlated with depression, CAGE scores, physical health or smoking behaviors. Spouses who were working were asked how much they enjoyed their work. Of those who worked, over 75% (AD-78%; USAR 83%; ARNG- 88%) of spouses stated that they very much or mostly enjoy their work. We also asked spouses who were not working how much they enjoyed being at home. Likewise, of those who were at home, there was a great deal of enjoyment in what they were doing. Seventy-nine percent of AD spouses said they mostly or very much enjoyed being at home as did 86% of USAR spouses and 97% of ARNG spouses.

#### Presence of Children and Eldercare

The majority of spouses had children living at home with them. Seventy-one percent of AD spouses have one or more children at home as did 70% of USAR spouses and 82% of ARNG spouses. Differences in the number of children at home was associated with retention preference,  $X^2(3, N=650) = 20.74, p=.000$ . Of those who had no children, 70% of spouses wanted their soldiers to remain in the military. Almost 77% of those with 1 child wanted their soldiers to remain while 84% with 2 children and 88% with 3 or more children wanted their soldier to remain in the military. Thus, as the number of children increased so did the spouses' preference for wanting their soldiers to stay in the Army.

The number of children living at home was associated with the number of alcoholic drinks consumed per week ( $r = -.17, p < .01$ ), smoking habits ( $r = -.13, p < .01$ ), and extent of enjoying children ( $r = -.27, p < .01$ ). Increases in the number of children was associated with fewer alcoholic drinks and cigarettes consumed and greater enjoyment of

children. However, as the number of children in the home increased so did marital dissatisfaction ( $r=.15$ ,  $p<.01$ ) and the frequency of marital conflict ( $r= -.18$ ,  $p<.01$ ). Most spouses stated that having children at home was an enjoyable experience. When asked to what extent they found having children at home to be an enjoyable experience, 80% of AD spouses reported to a very great extent/great extent as did 74% of USAR spouses and 79 % of ARNG spouses.

Only 5% of AD spouses in this sample reported having responsibility for parents or other adult relatives whereas that figure was more than tripled for the USAR(18%) and ARNG (19%) spouses. Among AD spouses, responsibilities for elders were for only one or two relatives (7% and 3%) respectively, whereas 50% and 39% of USAR and 46% and 35% of ARNG spouses had responsibilities for one or two relatives, respectively. However, a high percentage of spouses having such responsibilities did not find them to be a burden (89% AD; 67% USAR; 63 % ARNG). Not considering elders a burden was associated with increased smoking ( $r=.21$ ,  $p<.05$ ). However, this variable was not associated with drinking behaviors, retention preference, physical or psychological health.

#### Marital Satisfaction and Conflict

Most spouses indicated a high degree of satisfaction with their marriages. Over 85% of spouses in each component reported that they were either "satisfied" or "very satisfied" with their marriages. The question regarding conflict in marriage – "There are many reasons why couples have conflicts. How frequently is there conflict in your marriage"- found that approximately 10% of spouses reported frequent conflict in their marriages; AD-12 %; USAR- 11%; ARNG- 12%. Increased marital dissatisfaction was

significantly correlated with an increased frequency of marital conflict ( $r = -.63, p < .01$ ), higher CAGE scores ( $r = .19, p < .01$ ), higher CESD depression scores ( $r = .38, p < .01$ ), poorer physical health ratings ( $r = .18, p < .01$ ) and a higher number of alcoholic drinks consumed ( $r = .09, p < .05$ ). Marital satisfaction was not correlated with retention preference. Higher levels of marital conflict were also correlated with higher CAGE scores ( $r = -.14, p < .05$ ), higher CESD depression scores ( $r = -.37, p < .01$ ), poorer physical health ratings ( $r = -.17, p < .01$ ) and a higher number of alcoholic drinks consumed ( $r = -.09, p < .05$ ). Marital conflict was not correlated with retention preference.

### **Army Mission and Size**

The perception that soldiers are spending too much time away from home was clearly evident among AD spouses. Seventy percent of them agreed/strongly agreed with the statement, "My soldier spends too much time away from home because of the Army." In contrast, only 32% of USAR spouses and 23% of ARNG spouses agreed with the statement. But then there was a significant difference in how much time the AD soldier spent away from home compared with those of the other Army components ( $F = 44.14, p < .000$ ), AD spouses reported that their spouses were away significantly longer than did either the USAR or ARNG ( $p < .05$  in both cases). There were no significant differences between USAR and ARNG spouses. Mean scores for the three groups were (on a scale of 1-4 where 1 = < 1 month and 4 = 6 months or more): USAR = 1.48 (SD = .71); ARNG = 1.46 (SD = .75); AD = 2.20 (SD = 1.02). Increased time away for training/deployments/field exercises was associated with the perception that the Army takes too much time away from home ( $r = -.35, p < .01$ ). Increased time soldiers spent

away from home was associated with increased spouse depression scores ( $r = .14$ ,  $p < .01$ ) and with an increased number of alcoholic drinks consumed per week ( $r = .12$ ,  $p < .01$ ). Increased time away for training/deployments/field exercises was also associated with an increase in smoking ( $r = .11$ ,  $p < .01$ ). No significant associations were found between time away for training/deployments/field exercises and current physical health, marital satisfaction or spouse retention preference.

Table 11. Time A Soldier Spends Away from Home in a Year  
For Training, Field Exercises, and Deployments: AD, USAR, ARNG

Soldier's time spent away from home in the last 12 months	AD %	USAR %	ARNG %
Less than one month	32	62	66
2-3 months	29	32	26
4-5 months	28	4	4
6 or more months	12	3	4

The level of stress experienced by spouses because of military separations was significantly correlated with the time spent away from home. Increase in the length away for training/deployments/exercises was associated with increases in the stressfulness that spouses experienced by being separated from their soldiers ( $r = .21$ ,  $p < .01$ ). Almost 1/3 of AD spouses found the separations to be seriously or very seriously stressful in contrast to 13% of USAR spouses and 12% of ARNG spouses. Results from a one-way ANOVA indicated a significant difference between USAR, AD and ARNG spouses on the stress of military separations ( $F = 26.63$ ,  $p < .000$ ). More specifically, active duty spouses were significantly more stressed than either Reserve or National Guard spouses ( $p < .000$  and  $p < .05$ , respectively). There were no significant differences between USAR and ARNG spouses. Mean stress scores for the three groups were (on a scale of 1-5; 1 = not at all

stressful and 5 = very seriously stressful): USAR= 2.46 (SD= .99); ARNG= 2.39 (SD = .97); AD = 3.13 (SD= 1.17). The stress of military separations was associated with several outcome measures. Increases in this variable was correlated with spouses wanting their soldiers to get out of the Army ( $r = -.26, p < .01$ ). Increases in feeling stressed due to military separations were also associated with increased depression (CESD) ( $r = .25, p < .01$ ) and increased marital conflict ( $r = -.08, p < .05$ ). However, no significant association was found between stress and marital satisfaction, current physical health, smoking habits, or number of alcoholic drinks consumed per week.

Apart from separations due to training, field exercises, and deployments, the hours in garrison were considered to be unpredictable by over 60% of AD spouses. Less than one fourth USAR and ARNG spouses thought their soldiers' hours were unpredictable. Analysis of variance results indicated significant mean differences between the components ( $F = 58.06, p < .000$ ). Spouses from the USAR and ARNG thought their soldiers hours were much more predictable than the active component spouses ( $p < .05$  in both cases). Mean scales for the three groups were (on a scale of 1-5 where 1 = very predictable and 5 = very unpredictable): USAR = 2.38 (SD = 1.13); ARNG = 2.23 (SD = 1.16); AD= 3.54 (SD = 1.34). Predictability of soldier hours was associated with retention preference and marital satisfaction. An increase in the unpredictability of a soldier's duty hours was associated with spouses not wanting their soldiers to stay in the Army ( $r = -.08, p < .05$ ) and with increases in marital dissatisfaction ( $r = .14, p < .01$ ). Predictability was also correlated with depression ( $r = .12, p < .01$ ) and number of alcoholic drinks consumed ( $r = .10, p < .05$ ), but not with

smoking or physical health. As unpredictability increased so did depression scores and number of drinks consumed.

Regardless of separations and unpredictable hours, most spouses believed that their soldiers enjoyed their jobs. Sixty percent of AD spouses, 73% of USAR spouses and 84% of ARNG spouses reported that their soldiers very much /mostly enjoyed their jobs. However, there were significant differences between USAR, AD and ARNG spouses on how much they felt their soldier enjoyed their military job ( $F = 21.46, p < .000$ ). All three groups were significantly different from each other in their perceptions (AR versus NG,  $p < .003$ ; USAR versus AD,  $p < .034$ ; AD versus ARNG,  $p < .000$ ). Mean scores for the three groups were (on a scale of 1-5; 1 = very much, 5 = not at all): USAR = 2.24 (SD = 1.07); ARNG = 1.93 (SD = .89); AD = 2.58 (SD = 1.22). Spouses who felt that their soldier's enjoyed their jobs indicated greater marital satisfaction ( $r = .09, p < .05$ ), less depression ( $r = .10, p < .05$ ) and a desire for the soldier to remain in the military ( $r = -.31, p < .01$ ). However, perceptions of job enjoyment were not significantly related to physical health or health-related behaviors.

Likewise when asked how their soldiers enjoyed being in the military, the majority of spouses thought their soldiers' very much/ mostly enjoyed being in the military (AD 59%; USAR 70%; ARNG 81%). Analysis of variance results indicated a significant difference between USAR, AD and ARNG spouses on how much they felt their soldier enjoyed being in the military ( $F = 19.39, p < .000$ ). All three groups were significantly different from each other in their perceptions (USAR versus ARNG,  $p < .014$ ; USAR versus AD  $p < .026$ ; AD versus ARNG,  $p < .000$ ). Mean scores for the three

groups were (on a scale of 1-5; 1 = very much, 5 = not at all): USAR = 2.23 (SD = 1.12); ARNG = 1.96 (SD = .89); AD = 2.59 (SD = 1.23).

However, when asked how they enjoyed being an Army family member, spouses were not as positive as they perceived soldiers to be about being part of the military. Only 48% of AD spouses, 41% of USAR spouses, and 55% of ARNG spouses said they very much/mostly enjoyed being Army family members.

The majority of spouses also thought that their soldiers' jobs were secure (AD 83%; USAR 71%; ARNG 78%). Analysis of variance results indicated a significant difference between USAR and AD on how secure they felt their soldiers' jobs were ( $F = 4.42, p < .012$ ); (USAR versus AD  $p < .009$ ) but ARNG spouses did not differ from the other two groups. Mean scores for the three groups were (on a scale of 1-5; 1 = very much, 5 = not at all): USAR = 2.14 (SD = 1.16); ARNG = 1.95 (SD = 1.07); AD = 1.76 (SD = 1.04). Perceptions of increased soldier job security were associated with increased marital satisfaction ( $r = .12, p < .01$ ), better physical health ( $r = .13, p < .01$ ) and less depression ( $r = .12, p < .01$ ). Perceptions were not significantly correlated with health-related behaviors or retention preference.

## **Summary and Conclusions**

### **Component Integration**

Overall, we found that AD spouses indicated a greater degree of integration into the military community than did USAR or ARNG spouses and that those who felt more integrated wanted their soldiers to remain in the military. We did not find a high degree of integration for any of the three components nor did we find integration to be related to any of our well-being measures. However, a greater degree of integration was associated

with wanting the soldier to remain in the military. One possible explanation for our findings is that the study focused only on those spouses whose soldiers were not deployed. In another study of deployed soldiers, we might expect to find a much higher level of integration. Deployments precipitate spouses' need for information about their soldiers and their safety that is information under the control of the unit, mainly its rear detachment, and the Army. Of course the ever-increasing use of cell-phones and e-mail from deployment sites (see e.g., Ender, 1995) may yet negate the need for the unit under these circumstances.

Another possible explanation for these findings may lie in the fact that so many spouses are working and in addition, have children in the home. There simply may be no time for friends or involvement with military activities. In the 1995 Survey of Army Families it was reported that 29% of spouses were working full-time and 19% were working part-time; an additional 15% of spouses were looking for work (SAF 1995). Therefore, in total, 63% of spouses could be considered as work oriented. This is occurring in conjunction with the fact that almost half (46%) of military members have children (Military Family Resource Center 2000). In our study, 65% of the spouses were working either full or part time and 80% had one or more children living in their household.

Perhaps the most likely explanation lies in our use of self-reported behavioral measures to gauge the degree of integration spouses have with the military community. The real indicators of integration may lie in the area of attitudinal integration. This may be analogous to religious affiliation where people may identify strongly with a religious organization even though they attend services only on holy days, if at all.



### **Social Demographics**

Social demographics did not play a major role in retention or health outcomes although some significant results were found. Financial status within Army families was found to be an area of considerable concern although its relationship with health and retention was not particularly strong. Two-thirds of Army AD spouses did not perceive pay as being adequate, but that perception did not correlate with wanting their soldiers to leave the Army. Nearly 50% of USAR spouses claimed to be highly dependent on Reserve pay, but again, that was not correlated with retention, whereas 80% of ARNG spouses claim pay dependency and it was significantly correlated with retention for them.

When questioned about the effect of pay and allowances on their retention preferences, 39% said they had a positive effect and 42% a negative effect. There are several possible explanations for the almost even split between the percentage of those viewing pay and allowances positively and those viewing them negatively. For those seeing them positively, it may be that the certainty of knowing that pay and allowances will be available to them on a regular basis is very important. No longer fearful of the consequences of downsizing on their personal lives, these families may have a sense of security about their financial futures. The almost equal percentage that say pay and allowances make them want them to leave the service may view the economic opportunities in the civilian sector far superior to those of the Army.

Although the Army has made financial counseling services available to its families at both the unit and community level, the data show that debt is still a problem for a sizeable percentage of its personnel. Spouses have gone into the labor force to get

money to cover basic expenses, so it is problematic that such a small number of families have sought help for debt reduction.

The presence of children was associated with retention; the more children in a family, the more likely to want the soldier to remain in the military. The security of certain military benefits including pay and medical, a variable not in this study, is a variable to be considered in future studies when exploring the effects of family on retention.

Eldercare did not prove to be a significant issue for these spouses. Eldercare was not associated with their health or retention preferences. The small percentage of AD families who had responsibilities for elders may suggest that the issue does not warrant further study; however, almost one-fifth of the Reserve component families did have responsibilities for elders. The issue looms in importance for these families if the soldier is taken away from the family on extended deployments. Although troops are limited to six months deployments, research (Jones, 1995, Kirkland et al., 1996, Britt, 1998) has shown that is sufficient time for stress to develop and have negative consequences for individuals and families.

The majority of spouses indicated that they were satisfied with their marriages and likewise few reported conflict. Marital conflict and satisfaction were not associated with retention preference, although they were associated with poorer physical and psychological health. If marital conflict or satisfaction were directly related to the soldier's job then perhaps this finding would have yielded significance for retention. However, if a different source contributed to the conflict or dissatisfaction then one might not expect to see a significant relationship to retention. As for the health findings, prior

studies of marriage and health have indicated that marital conflict and dissatisfaction were associated with poorer physical and psychological health (Bernard, 1975, Edwards et al 1998; Davila et al., 1997).

### **Army Mission and Size**

Correlations indicated that increased time away from the soldier due to training/deployments/field exercises was associated with greater spouse stress, increased depression, increased smoking and increased consumption of alcohol. However, only the perceptions of the separations were correlated with retention preference; spouses who felt greater stress during the separations indicated that they did not want their soldier to remain in the military. Spouse's perceptions of the unpredictability of the soldier's work hours and a soldier's lack of job enjoyment were both associated with increased depression and wanting their soldiers to leave the Army. Perceptions of decreased job security were also associated with increased depression but not with retention. These findings suggest that separations as well as spouse's perceptions of separations and the soldier's job play a role in health and retention outcomes. In future studies it will be beneficial to determine if reducing the length and amount of deployments/training/field exercises as well as reducing the unpredictability of work hours will result in decreased spousal stress. This would require a longitudinal approach that follows spouses whose soldiers are in garrison and deployed environments.

This research serves as a baseline to study spouses whose soldiers are in garrison. Since the study was based on a convenience sample, the generalizability of its findings to the all Army spouses is limited. However, the data are important as they provide issues that need to be further explored in future research, not just for other spouses whose

soldiers are in garrison but also for spouses whose soldiers are deployed. Additionally, these data may provide commanders and policy makers with information on factors that may potentially promote well-being and retention as well as those factors that may have a negative impact on these outcomes.

## References

Abbott, D.A. and G.H. Brody. 1985. "The Relation of Child Age, Gender, and Number of Children to the Marital Adjustment of Wives." *Journal of Marriage and the Family*, 47, 77-84.

Adler, A.B., P.T. Bartone, and M.A. Vaitkus. 1995. *Family Stress and Adaptation during a U.S. Army Europe Peacekeeping Mission, USAMRU-E Technical Report 95-1*. Ft. Detrick: U.S. Army Medical Research Unit-Europe.

Army Family Team Building, Maryland. 2002.  
<http://www.apg.army.mil/garrison/cfa/fam-ser/aftb.htm>

Army Personnel Survey Office. 1995. *Survey of Army Families III: Final Summary*. Alexandria, VA.: U.S. Army Community and Family Support Center.

Belsky, J. and J. Kelly. 1994. *The Transition to Parenthood: How a First Child Changes a Marriage*. New York: Delacorte Press.

Bernard, J. 1975. *The Future of Marriage*. New York: Bantam.

Britt, T.W. 1998. "Psychological Ambiguities in Peacekeeping." Pp. 111-128 in *The Psychology of Peacekeeping* edited by Langholtz, H.J. Westport, CN: Praeger.

Coolbaugh, K.W. and A. Rosenthal. 1992. *Family Separations in the Army, ARI Technical Report 964*. Alexandria, VA: U.S. Army Research Institute for the Behavioral and Social Sciences.

Correspondence from the Defense Manpower Data Center, August 2000.

Costa, D.L. 1997. "Displacing the Family: Union Army Pensions and Elderly Living Arrangements." *Journal of Political Economy* 105,6:1269-1292.

Cowan, C.P. and P.A. Cowan. 1988. "Who Dies What When Partners Become Parents: Implications for Men, Women, and Marriage." *Marriage and Family Review*, 13:105-132.

Davila, J., T.N. Bradburym C.L. Cohan, and S. Tochluk. 1997. "Marital Functioning and Depressive Symptoms: Evidence for a Stress Generation Model." *Journal of Personality and Social Psychology*, 73, 4:849-861.

Defense Manpower Data Center. 1986. *1985 DoD Survey of Officer and Enlisted Personnel and Military Spouses*. Arlington, VA, DMDC.

Defense Manpower Data Center. 1994. *1992 DoD Survey of Officer and Enlisted Personnel and Military Spouses*. Arlington, VA, DMDC.

- Dyer, E.D. 1963. "Parenthood as Crisis: A Re-Study." *Marriage and Family Living*, 25:196-201.
- Dwyer, J.W. and R.T. Coward. 1991. "Multivariate Comparison of the Role of Adult Sons Versus Daughter in the Care of Impaired Parents." *Journal of Gerontology*, 30: 259-269.
- Ender, M.G. 1995. "G.I. Phone Home: The Use of Telecommunications by the Soldiers of Operations Just Cause." *Armed Forces and Society* 221,3:435-453.
- Edwards, A.C., J.Y. Nazroo, and G.W. Brown. 1998. "Gender Differences in Marital Support Following a Shared Life Event." *Social Science and Medicine* 46, 8, 1077-1085.
- Fine, M.A. and L. Kurdek. 1995. "Relationship between Marital Quality and (Step) Parent-Child Relationship Quality for Parents and Step-Parents and Step-Families." *Journal of Family Psychology*, 9:58-68.
- Fukuyama, F. 1989. "The End of History." *The National Interest*. 16:3-18.
- Goldscheider, F.K. and L. Lawton. 1998. "Family Experiences and the Erosion of Support for Intergenerational Co-residence." *Journal of Marriage and the Family*. 60: 623-662.
- Griffith, J.D., Z.D. Doering, and B.S. Mahoney. 1986. "Description of Spouses of Officers and Enlisted Personnel in the U.S. Armed Forces: 1985. Arlington, VA: Defense Manpower Data Center.
- Griffith, J.D., L.S. Stewart, and E.D. Cato. 1988. *Annual Survey of Army Families: Report on Army Spouses and Families in 1987*. Alexandria, VA: U.S. Community and Family Support Center.
- Hunter, E.J. and R.J. Hickman. 1981. *Family Separation and Reunion: A Style of Life in the Military*. San Diego, CA: United States International University.
- Huston, T.L. and A.L. Vangelisti. 1995. "How Parenthood Affects Marriages." Pp. 147-176 in *Explaining Family Interaction* edited by Fitzpatrick, M.A. and A.L. Vangelisti. Newbury Park, CA: Sage.
- Ickovics, J.R. and S.A. Martin. 1987. "The Impact of Employment on the Psychological Well-being of Army Wives.: A Longitudinal Survey Study." *Military Medicine*, 152:500-503.
- Ishi-Kunt, M. and M. Ihinger-Tallman. 1991. "The Subjective Well-being of Parents." *Journal of Family Issues*, 12:58-68.

- Johnson, E.M. and T.L. Huston. 1998. "The Perils of Love, or Why Wives Adapt to Husbands During the Transition to Parenthood." *Journal of Marriage and the Family*. 60:105-204.
- Johnson, F.C. and D.W. Johnson. 1980. "Family Planning: Implications for Marital Stability." *Journal of Divorce*, 3: 273-281.
- Jones, F.D. 1995. "Psychiatric Lessons of War." PP.1-33 in *War Psychiatry* edited by Zajtschuk and R.F. Bellamy. Falls Church, VA : Officer of the Surgeon General.
- Kenny, J.A. 1967. "The Child in the Military Community." *Journal of the American Academy of Child Psychiatry*, 6,1:51-63.
- Kirkland, F.R., R.R. Halverson, and P.D. Bliese. 1996. "Stress and Psychological Readiness in Post-Cold War Operations." *Parameters* Summer:79-91.
- LaGrone, D.A. 1978. "The Military Family Syndrome." *American Journal of Psychiatry*, 135,9:1040-1043.
- Leonard, J.J. 1999. "Total Force." <http://www.ausa.org/armyzine/leonardsaug99.html>.
- LeMasters, E.E. 1957. "Parenthood as Crisis." *Marriage and Family Living*, 19:352-355.
- Lewis, P.M. 1985. "Family Factors and the Career Intent of Air Force Enlisted Personnel, LMDC Technical Report 85-9." Washington, DC: USAF Office of Scientific Research..
- Mandelson, D.A. 1997. "Women's Changing Labor-Force Participation in the U.S." Pp. 3-7 in *Women and Work*, edited by Dubeck, P.A. and K. Borman. New Brunswick, NJ: Rutgers University Press.
- Mayfield, D., G. McLeod, and P. Hall. 1974. "The Cage Questionnaire: Validation of A New Alcoholism Screening Instrument." *American Journal of Psychiatry*, 131,10:1121-1123.
- Maze, R. 2000. "Stay for Pay (or Not): Money Cited as Top Reason People Leave and Remain." *Army Times*, March 27: 18.
- Maze, R. 2000. "End Married vs. Single Pay Gap?" *Army Times*, March 27: 28.
- Mearsheimer, J.J. 1990. "Why We Will Soon Miss the Cold War." *Atlantic Monthly*. 226:35-50.
- Menaghan, E. 1983. "Coping with Parental Problems: Panel Assessments of Effectiveness." *Journal of Family Issues*, 4:483-506.

Military Family Resource Center. 2000. *Profile of the Military Community: 1999 Demographics*. Alexandria, VA: MFRC.

Mohr, D.A., R.L. Holzbach, and R.F. Morrison. 1981. *Surface Warfare Junior Officer Retention: Spouses' Influence of Career Decisions, NPRDC Technical Report 81-17*. San Diego, CA: Navy Personnel Research and Development Center.

Netermeyer, R. J. Boles, and R. M. McMurrian. 1996. "Development and Validation of Work-Family Conflict and Family-Work Conflict Scales." *Journal of Applied Psychology*, 81,4:400-410.

Nice, D.S. and A. Beck. 1980. *Feelings of Depression in Navy Wives Prior to Family Separation*. San Diego, CA: Naval Personnel Research and Development Center.

Office of the Secretary of Defense. 1993. *Family Status and Initial Term of Service: Vol. II Trends and Indicators*. Washington, DC: SECDEF.

Orthner, D.K. 1990. "Family Impacts on the Retention of Military Personnel." Paper presented at the Family Research Review Conference, Washington, DC.

Radloff, L.S. 1977. "The CES-D Scale: A Self-report Depression Scale for Research in the General Population." *Applied Psychological Measurement*, 1:385-400

Rogera, S.J. and L.K. White. 1998. "Satisfaction with Parenting: The Role of Marital Happiness, Family Structure, and Parents' Gender." *Journal of Marriage and Family*, 60:293-308.

Rosen, L.N. and L.Z. Moghadam. 1991. "Predictors of General Well-being among Army Wives." *Military Medicine*, 2, 156:357-361.

Rosen, L.N. and D.B. Durand. 2000. "Coping with the Unique Demands of Military Family Life." Pp. 55-72 in *The Military Family: A Practice Guide for Human Service Providers* edited by Martin, J., L.N. Rosen, and L.R. Sparacino. Westport, CN: Praeger Publishers.

Sanders, J.W. 1992. "The War of Historical Interpretation and the Prospects for Peace in the Post-Cold War Era." Pp 255-289 in *The Transformation of European Communist Societies* edited by Kriesberg, L. and D.R. Segal.

Sapiro, V. 1996 *Women in American Society*. Mountain View, CA: Mayfield Publishing.

Schwartz, J.B., B.A. Brady, J.D. Griffith, and L. Wood. 1988. *The Employment Status of Army Spouses, ARI Technical Report 14*. Arlington, VA: U.S. Army Research Institute for the Behavioral and Social Sciences.



- Segal, D.R. 1997. "Attitudes of Citizen-Soldiers Toward Military Missions in the Post-Cold War." *Armed Forces and Society*, 23:273-390.
- Segal, D.R. and M.W. Segal. 1993. "Peacekeeping in the Post-Cold War World." Pp. 157-167 in *Peacekeepers and Their Wives: American Participation in the Multinational Force and Observers*, edited by Segal, D.R. and M.W. Segal. Westport, CN: Greenwood Press.
- Segal, M.W. 1986. "The Military and the Family as Greedy Institutions." *Armed Forces and Society*, 13,31:9-38.
- Segal, M.W. 1989. "The Nature of Work and Family Linkages: A Theoretical Perspective." Pp. 3-37 in *The Organization Family: Work and Family Linkages in the U.S. Military*, edited by Bowen, G.L. and D. K. Orthner. New York, Praeger.
- Schulman, N. 1975. "Life-Cycle Variations in Patterns of Close Relationships." *Journal of Marriage and the Family*. 37:813-821
- Soldo, B. and J. Myllyluoma. 1983. "Caregivers Who Live with Dependent Elderly." *The Gerontologist*, 23:605-611.
- Thomas, L.T., and D.C. Ganster. 1995. "Impact of Family Supportive Work Variables on Work-Family Conflict and Strain: A Control Perspective." *Journal of Applied Psychology*, 81,4: 400-410.
- Tonelson, A. 1990. "Why We Will Soon Miss the Cold War." *Atlantic Monthly*, 266:35-5058.
- Umberson, D. and C.L. Williams. 1993. "Divorced Fathers: Parental Role Strain and Psychological Distress." *Journal of Family Issues* 14:378-400.
- U.S. Department of Commerce 1980. *Statistical Abstract of the United States*. Washington, D.C.:Bureau of the Census.
- U.S. Army Posture Statement FY01 . [http://www.army.mil/aps/aps\\_toc.htm](http://www.army.mil/aps/aps_toc.htm)
- Van Vranken , E.W., L.J. Jellen, K.H. Knudson, D.H. Marlowe, and M.W. Segal. *The Impact of Deployment Separation on Families*, WRAIR 84-6. Washington, DC: Walter Reed Army Institute of Research.
- Watanabe, H.K. and P.S. Jensen. 2000. "Young Children's Adaptation to a Military Lifestyle." Pp. 209-223 in *The Military Family: A Practice Guide for Human Service Providers* edited by Martin, J.A., L.N. Rosen, and L.R. Sparacino. Westport, CN: Praeger Publishers.

- Wertsch, M.E. 1991. *Military Brats: Legacies of Childhood Inside the Fortress*. New York: Harmony Books.
- Windle, M. and Dumenci, L. 1997. "Parental and Occupational Stress as Predictors of Depressive Symptoms among Dual-Income Couples: A Multi-Level Modeling Approach." *Journal of Marriage and the Family*, 59:625-634.
- Wong, L., P.D. Bliese and R.H. Halverson. 1995. "Multiple Deployments: Do They Make a Difference?" Paper presented at the Biennial Conference of the Inter-University Seminar on Armed Forces and Society, Baltimore MD.
- Wood, L. 1990. *Family Economics and the Retention Intentions of Army Enlisted Personnel*, ARI Research Note 90-68. Alexandria, VA: U.S. Army Research Institute for the Behavioral and Social Sciences.